

Action Items (and Rationale) for Surface Sources
Source Water Protection Strategy Update
Paul Susca, DWSPP September 10, 2009

Having been reviewed by the Surface Water Working Group, the following action items shown in ***bold italic*** will be included NHDES's 2009 Source Water Protection Strategy. References to attachments refer to materials prepared at the request of the Working Group and emailed to the group on August 5, 2009.

Land & Water Project

- ***Determine the most effective way(s) of providing SWP technical assistance, education, and outreach to municipalities*** (under Action Item 4).
- ***Evaluate the potential for enhancing the role of the regional planning commissions in providing SWP technical assistance to municipalities and water systems*** (Action Item 6).

Watershed Plans

Experience has shown that the key to development and implementation of an effective watershed management program is a key player who provides direction and keeps the momentum going. Looking at the lists of examples pulled together at the request of the working group, such key players are typically water systems (usually large ones such as Pennichuck or Manchester), town planners (Meredith, Laconia), local advisory committees for rivers designated under the Rivers Management and Protection Program (RMPP) (e.g., Exeter R.), or active lake/watershed organizations (Newfound Lake). Successful key players often rely on consultation with DES – usually the Watershed Management Bureau and sometimes the Drinking Water Source Protection Program (DWSPP). The DWSPP should:

- ***Identify candidates who could be key players in developing and implementing watershed plans for surface sources, and contact them individually*** to discuss the benefits of pursuing a watershed management program, explain the financial and technical assistance available from DES, and cooperatively determine whether and how the key player can proceed. This action item should be closely coordinated with the Watershed Management Bureau.

Riparian Buffers

The value of vegetated buffers in protecting water quality is demonstrated by the Horsley & Witten memos (Attachments E through H). Analysis by DES indicates that 59 percent of riparian buffers in water supply watersheds (representing roughly 80 percent of the state's waters) are unprotected by conservation land, local regulations, or the Comprehensive Shoreland Protection Act (CSPA), as indicated in Attachment C. Although the CSPA Commission in 2006 recommended extending the applicability of the

Act to third order streams – which would have nearly quadrupled¹ the percentage of rivers and streams covered – the legislature chose not to take that step. Currently, the HB 1579 Land Development Commission² is considering statewide buffers for wetlands (including surface waters); buffer width would depend on the value of the wetland.

- ***DWSPP should support this concept by presenting a compelling data-based case for taking into account the water supply protection value of wetlands and surface waters within this framework.***

DES's Water Supply Land Protection Grant Program amended its rules in June 2009 to give greater weight to the protection of riparian areas in water supply watersheds. No grant funds are currently available, but DES is expecting funds to become available in late 2009 in connection with the I-93 widening project; the use of the funds will be restricted to towns affected by the I-93 widening.

Coordination with Other Programs

As indicated in the impervious areas memo (Attachment D), DES's two main regulatory programs dealing with land conversion – the Alteration of Terrain Program (AoT) and the Shoreland Protection Program – take an integrated approach that combines maintaining minimal riparian buffers, reducing stormwater runoff, and limiting or discouraging excessive impervious cover. The DWSPP should pursue the opportunities identified in Attachment D:

- ***Refine AoT and CSPA Rule Definitions Related to Undisturbed/Unaltered Areas***
- ***Develop Incentives to “Disconnect” Runoff***
- ***Ensure Permanent Protection/Maintenance of Undisturbed Areas.***

In addition, for certain DES permitted-projects (under AoT, CSPA, and wetlands) that affect Outstanding Resource Waters (waters within the National Forest and natural segments of RMPP-designated rivers), strict anti-degradation provisions (no additional pollutant loading) apply. Less-strict anti-degradation provisions (additional loadings may not cause the water to become impaired) apply to other waters, but some details still need

¹ The legislature did implement the Commission's recommendation to nearly double the river and stream miles covered by switching to a better geographic data set. Extending coverage to third order streams would have nearly doubled the mileage again.

² The charge of this commission, established in 2008, includes, “The effects of land development on surface and ground water quality and quantity, and terrestrial and aquatic habitat;” “The adequacy and consistency of local, state, and federal programs as they relate to the regulation and management of land development, including regulations of wetland buffers and setbacks, stormwater management, and cumulative effects of development;” and “The opportunities for integration of land use controls, open space protection techniques, and environmental and public health protection laws to promote land development patterns that maintain ecosystem health and integrity while providing desirable communities in which to live and work.”

to be worked out with respect to how those provisions will be implemented in DES's programs.

The anti-degradation provisions seem to present opportunities for water supply sources to be afforded a higher level of protection under DES programs. One way would be for source waters to be designated by rule as Outstanding Resource Waters (ORWs), and thus be covered by the strictest anti-degradation standards. However, this would carry the drawback (in the view of many communities) of eliminating all future development that would create any additional pollutant loading.

The Watershed Management Bureau has outlined a more flexible alternative to ORW designation. The anti-degradation rules currently provide for a higher level of protection for high quality waters of special significance (HQ/SS). Essentially, any new discharge or loading of pollutants (phosphorus, nitrogen or total suspended solids are the main pollutants of concern) to an HQ/SS water would be considered significant, and would have to be justified, following a pollutant loading analysis and a public input process, in terms of social or economic benefit. An alternatives analysis would also have to be done to identify and assess the feasibility of alternatives to the proposed development *techniques* that would not result in degradation. At present, the details of processes for designating waters as HQ/SS and for implementing the anti-degradation review are matters of policy rather than rule, and the Watershed Management Bureau plans to incorporate these details into the anti-degradation rules within the next two years. In the meantime, the HQ/SS designation process may be soon be tried for the first time, as the Newfound Lake Region Association is already incorporating this process into its watershed plan. To take advantage of this opportunity, the DWSPP should:

- ***Work with the Watershed Management Bureau to clearly define the processes (to designate HQ/SS waters and to implement the anti-degradation provisions for such waters) in order to make this tool an attractive option for protection of water supply sources.***

As currently envisioned, designation of a water body as an HQ/SS water could be initiated by either a local entity or by DES. Once so designated, it would be protected by the enhanced anti-degradation review outlined above being applied not only to DES-permitted activity (AoT, CSPA, wetlands), but also to smaller projects that are reviewed and approved at the municipal level only. However, in order for the review (possibly to be done by DES) to apply to smaller projects, provisions for the review would need to be written into local land use ordinances.

- ***Outreach and assistance to water suppliers and to municipalities in the watersheds of HQ/SS waters should be provided by the DWSPP in order to fully implement the enhanced protection envisioned under this approach.***